SECTION 3.4: LAND USE

This section discusses the potential effects that the alternatives considered in Chapter 2 would have on land uses within the DMC Unit. Information in this section was summarized primarily from the final CVPIA PEIS (Reclamation and Service 1999), county general planning documents, CVP contractor water conservation plans, U.S. Bureau of the Census data on population, and information obtained in interviews with individual DMC Unit contractors.

AFFECTED ENVIRONMENT

Land use can be defined as the human use of land resources for various purposes including economic production, natural resources protection, recreation, or institutional uses. Land uses are frequently regulated by management plans, policies, ordinances, and regulations that determine allowable uses. Agricultural development and the conversion of natural habitat to agricultural uses began in the early to mid-1800s and intensified in the later 1800s as the railroads provided the means to transport agricultural produce to much larger markets. This section discusses lands in the project area at the county level and for the geographic service areas of the 20 contractors in the DMC Unit. A discussion of areas of Important Farmland is also included.

COUNTY LAND USES

As discussed previously, the DMC Unit contractors are located in the San Joaquin River Region. Land uses could be affected in portions of San Joaquin, Stanislaus, Merced, and Fresno Counties. The following discussion generally addresses lands located within these counties.

San Joaquin County

San Joaquin County encompasses approximately 1,440 square miles and includes the seven incorporated cities of Stockton, Tracy, Manteca, Escalon, Ripon, Lodi, and Lathrop. Stockton and Tracy are the largest cities in the county. The City of Tracy is the only CVP contractor in the DMC Unit that is a municipality and uses its CVP supply solely for M&I use.

Demographics

In 1990, it was estimated that more than 77 percent of the county's population resided within the seven incorporated cities, with the additional 23 percent residing within urban and rural unincorporated areas (San Joaquin County 1992a, 1992b, 1992c). The population in San Joaquin County is expected to increase from about 465,000 in 1990 to

about 750,000 by the year 2010 or to increase on average by about 14,000 persons per year (San Joaquin County 1992a, 1992b, 1992c). Year 2000 Census data reports a population of 563,598 persons in San Joaquin County (U.S. Bureau of Census 2000a). In 2004, the population of San Joaquin County was estimated to be 613,500 (California State Association of Counties 2004).

Land Use

According to the county's most recent General Plan, approximately 86 percent of the county's total acreage in 1990 was used for agriculture. The land uses in San Joaquin County are shown in Table 3.4-1.

Table 3.4-1
San Joaquin County Land Uses

Land Use	Acres	Percentage of County
Agriculture	788,896	86.47
Urban*	63,760	6.99
Other Land	49,332	5.41
Water	10,341	1.13
Total	**912,329**	**100.00**

Source: San Joaquin County General Plan (San Joaquin County 1992a, 1992b, 1992c)
* Includes residential, commercial and industrial

San Joaquin County contains large areas of highly productive soils. Agriculture and related activities have historically constituted a major portion of the county's economic base, and agriculture has been a mainstay of the county's economy. According to the 1997 Agricultural Census for San Joaquin County, there were 808,838 acres in farms; this represents an increase from 783,715 acres in 1992, but a decrease from the 823,729 acres in 1987. It is estimated that with projected population growth and continued urbanization in the county that the amount of agricultural land lost could increase from the 10 percent loss over the last 50 years to a 33 percent loss by the year 2040 (San Joaquin County 1992a).

Stanislaus County

Stanislaus County encompasses an area of approximately 1,500 square miles and includes the nine incorporated cities of Ceres, Hughson, Modesto, Newman, Oakdale, Patterson, Riverbank, Turlock, and Waterford. Modesto and Turlock are the largest cities in the county.

Demographics

In 1990, an estimated 74 percent of the population lived in incorporated areas, an increase from 65 percent in 1980 (Stanislaus County 1994). Based on U.S. Bureau of the Census data, the population in Stanislaus County increased by 39 percent in the 1980s from 265,900 to 370,522. This compared to the average increase statewide of 26 percent. Between 1980 and 1990, the population in Stanislaus County increased by 59 percent in incorporated cities, while the unincorporated areas saw an increase of only 3 percent. Since 1990, the county's population has continued to grow at an average annual rate of

3.5 percent, reaching a total population of 412,676 in 1994 (Stanislaus County 1994). Year 2000 Census data reports a population of 446,997 persons in Stanislaus County (U.S. Bureau of Census 2000b). In 2004, the population of Stanislaus County was estimated to be 481,600 (California State Association of Counties 2004).

Land Use

Stanislaus County has adopted a number of community plans for most of the unincorporated towns in the county. Community plans outline land uses and future growth patterns of the towns in the county and are used in conjunction with county general planning documents. For unincorporated areas not included in a community plan, land use designations generally include residential, commercial, industrial, agricultural, urban transition, and industrial transition. Over 95 percent of the area in the unincorporated county is zoned for agricultural use.

The incorporated cities in the county have adopted city general plans. Specific land use information is available from community and city general plans. General countywide land use information is not readily available in the Stanislaus County General Plan. However, the plan does state that urban development has spread over 48,000 acres, much of which was originally prime farmland in agricultural production. According to the 1997 Agricultural Census for Stanislaus County, there were 732,736 acres in farms; this represents a decrease from 759,649 acres in 1992 and a further decrease from 819,845 acres in 1987.

Merced County

Merced County encompasses approximately 2,020 square miles and includes the six incorporated cities of Atwater, Dos Palos, Gustine, Livingston, Los Banos, and Merced and 18 unincorporated communities. Merced is the largest incorporated city in the county.

Demographics

From 1980 to 1990, the population in Merced County grew by over 33 percent from 134,560 to 178,403. This is compared to the average increase statewide of 26 percent. The incorporated cities grew by approximately 41 percent and the unincorporated areas by 19 percent. Year 2000 Census data reports a population of 210,554 persons in Merced County (U.S. Bureau of Census 2000c). In 2004, the population of Merced County was estimated to be 225,100 (California State Association of Counties 2004).

Land Use

Merced County uses the “Urban Centered Concept” as a basic land use principle. This concept directs urban development in identified centers. Increased growth often results in

a loss of the most productive agricultural soils. Under this concept, however, urban development will only occur within cities, unincorporated communities, and other urban centers. The Urban Centered Concept was revised in 1990 to include the development of unincorporated communities in the foothills on both sides of the county. This revision has fostered the planned development of subdivisions that will presumably become the urban centers for new communities in the foothills of the county.[1] In Merced County, besides the urban areas discussed above, rural areas of the county, which are typically used for cropping or pasturing activities, are subject to their own land use designations. When the general plan was developed in 1990, it was estimated that 80 percent of the population lived in the urban centers, the remaining 20 percent lived in rural areas, and 95 percent of the land in the county was considered rural.

According to the 1997 Agricultural Census for Merced County, there were 881,696 acres in farms, a decrease from 1,049,302 acres ten years earlier.

Fresno County

Fresno County encompasses nearly 6,000 square miles and includes the 15 incorporated cities of Coalinga, Clovis, Firebaugh, Fowler, Fresno, Huron, Kerman, Kingsburg, Mendota, Orange Cove, Parlier, Reedley, San Joaquin, Sanger, and Selma. Over 60 percent of the population resides in the county's two largest cities, Fresno and Clovis.

Demographics

According to Department of Finance population estimates, the population in Fresno County grew between 1980 and 1990 by approximately 29 percent, from 514,621 to 661,400. This is compared to the average statewide increase of 26 percent. The combined populations of Fresno and neighboring Clovis comprise 61 percent of the total county population and 82 percent of the population of the other incorporated cities combined (County of Fresno 2000a). Year 2000 Census data reports a population of 799,407 persons in Fresno County (U.S. Bureau of Census 2000d). In 2004, the population of Fresno County was estimated to be 841,400 (California State Association of Counties 2004).

Land Use

In 1997, approximately 50 percent of the county's total acreage was used for agriculture. The current land uses in Fresno County are shown on Table 3.4-2.

[1] Pursuant to the Merced County General Plan, full environmental review is required for community specific plans for any such development that may, to the extent they are within the CVP permitted place of use, eventually rely on the CVP allocation to the agricultural water districts after the environmental review has been completed.

Farming and agriculture-related businesses comprise a major component of the local economy. Factors that contribute to its success include excellent soil and climatic growing conditions and workforce and transportation availability. According to the 1997 Agricultural Census for Fresno County, there were 1,881,418 acres in farms; this represents a decrease from 1,975,373 acres in 1987.

Table 3.4-2
Fresno County Land Uses
(1997)

Land Use	Square Miles
Residential	152
Commercial	7
Industrial	11
Agricultural	2,911
Resource Conservation[1]	2,691
Unclassified[2]	11
Incorporated Cities	154
Total	**5,937**

Source: Fresno County General Plan (County of Fresno 2000a, 2000b)
[1]Including national forests, parks and timber preserves
[2]Includes streets, highways and rivers

CVP CONTRACTORS

As discussed in Section 3.1, 20 contractors receive CVP water from the Delta-Mendota Canal. The following discussion provides information on land uses for each contractor as well as a discussion of current agriculture and future trends in agriculture as applicable. The figures included at the end of Section 3.1 display the current land use/land cover for those contractors discussed below.

Banta-Carbona Irrigation District

Banta-Carbona Irrigation District is entirely an agricultural district and currently does not supply any water for M&I use. It is anticipated that as the City of Tracy and the Interstate 5 corridor continue to grow, some areas currently within the district may be detached and annexed to the City of Tracy. Also, new areas that may require water for M&I purposes would be detached from the district. Currently, a few parcels within the district are targeted for detachment and would be annexed to the City of Tracy. Whenever a new urban expansion is planned, the land is automatically deleted from district boundaries. Banta-Carbona Irrigation District has informed Reclamation of its plan to transfer a portion of its CVP supply to the City of Tracy by 2025. Therefore, while vulnerable to development pressures along the Interstate 5 corridor, Banta-Carbona Irrigation District is expected to remain an entirely agricultural district.

The district was considered built-out in 1968, following the completion of an underground pipeline made possible with funds from a PL 84-984 federal assistance loan. All of those facilities have been used for district deliveries. However, as the City of Tracy continued to expand, some of these facilities have been modified or moved to continue serving the agricultural lands remaining in the district; water service through some of the newest

alignments has not yet begun. When an area is detached from the district, the water that was used to serve the land remains with the district.

Major crops being produced within the district include both row crops (cannery tomatoes, dry beans, alfalfa, and a small quantity of melons) and permanent crops (primarily almonds, with smaller amounts of walnuts, apricots, peaches, and apples). Also, some areas have been planted with grapes over the last few years. Irrigation methods include furrow, open ditch or border flooding, siphon pipe on row crops, and sprinklers on permanent crops. Historically, small areas of the district have remained fallow during the growing season.

Broadview Water District

Most of the farmers in the Broadview District lease the land from absentee landowners. Broadview Water District is almost entirely an agricultural district. The only CVP water used for M&I use is 23 acre-feet, which is used as the drinking water source in the district. The drinking water serves both Broadview Water District buildings and a small number of residents. Because Broadview Water District is located in a rural area away from major development pressures, the conversion from agricultural to M&I uses is unlikely.

Cropping patterns in the district have remained stable. The entire district is planted in row crops with approximately one-half of the district producing cotton. Other crops include seed alfalfa, tomatoes, and melons. There are no permanent crops in the district because of shallow groundwater levels. Irrigation methods include primarily furrow and gated pipe, with a smaller number of acres on sprinklers. Historically, areas of the district have remained fallow during the growing season.

Centinella Water District

The Centinella Water District, an entirely agricultural district, is 840 acres in size and has only one landowner. All CVP water is used for agricultural uses. Because Centinella Water District is located in a rural area away from major development pressures, the conversion from agricultural to M&I uses is unlikely. While Del Puerto Water District provides the administrative functions for the district, Centinella Water District has its own CVP contract.

City of Tracy

All CVP water received by the City of Tracy is used for M&I purposes. As urban growth continues both in Tracy and along the Interstate 5 corridor, urbanization would likely continue to expand into neighboring water districts. It is expected that some lands located in neighboring The West Side Irrigation District, Plain View Water District, and Banta-

Carbona Irrigation District may detach from their respective districts and be annexed to the City of Tracy. Once annexed, the City of Tracy will be responsible for fulfilling all water supply needs. To meet its growing water demands, the City of Tracy is actively pursuing additional surface water supplies in the form of permanent water transfers. The West Side Irrigation District is currently working with the City of Tracy to permanently transfer 5,000 acre-feet (2,500 acre-feet initially, with another 2,500 acre-feet in five years) of CVP supply for M&I use to help meet the city's growing demand. In addition, the South County Water Supply Program is expected to supply 10,000 acre-feet of treated surface water supply to the City of Tracy (South County Water 2004). Construction of facilities necessary to provide the supplemental supply is currently under way and is scheduled to be completed by the summer of 2005. The Banta-Carbona and West Side Irrigation Districts have also informed Reclamation of their plans to transfer a portion of their CVP supplies to the City of Tracy by 2025.

A large portion of the development in Tracy will be residential in nature; however, an increase in industrial and commercial development is also anticipated. Fueling the growth in the area is low land prices, expansion out of the San Francisco Bay Area, and freeway access.

Coehlo Family Trust

The portion of the Coehlo Family Trust property under contract with Reclamation for the delivery of CVP water is 1,120 acres in size. Row crops grown on the property include primarily cotton, with smaller quantities of wheat, garlic, and cannery tomatoes. Permanent crops include table grapes.

The Coehlo Family Trust property is located in the area of the Interstate 5 Business Development Corridor. This corridor is a rural partnership for Central California commerce and is formed by a coalition of the cities of Firebaugh, Mendota, Kerman, and San Joaquin and the unincorporated community of Tranquillity, in western Fresno County. The group has a goal of working as a cooperative association to attract business and industrial development and new jobs to the area. The area is currently experiencing small amounts of growth; however, this growth is not expected to affect the Coehlo Family Trust property operations in the short term. Growth in this portion of Fresno County is considered minor compared to the major growth pressures experienced along Interstate 5 near the cities of Patterson and Tracy.

Del Puerto Water District

Del Puerto Water District is primarily an agricultural district. There are about 170 water users in the district. Currently, the only CVP supply used for M&I purposes is the 1 acre-

foot of water supplied to the city landfill each month for dust suppression. All remaining CVP supplies are used for agriculture. Despite the urban sprawl in the area resulting from the growth of Patterson and Tracy and along the Interstate 5 corridor, Del Puerto Water District would like to continue to remain primarily an agricultural district. The district does not intend to increase the amount of CVP water used for M&I purposes.

More than 30 different crops have been grown commercially in the district over the years. Principal crops grown include row crops (cannery tomatoes, alfalfa, large limas, and dry beans). However, almost one-half of the agricultural production in the district is permanent crops (almonds, apricots, and walnuts). Typical irrigation methods in the district include primarily furrow irrigation for row crops and sprinkler, sprinkler with less frequent use of drip, and micro-misters for permanent crops. Historically, areas of the district have remained fallow during the growing season.

Eagle Field Water District

Eagle Field Water District is entirely an agricultural district. Because it is located in a rural area away from major development pressures, the conversion from agricultural to M&I uses is unlikely. The crops produced in the district include cotton, cannery tomatoes, and rice. In the past, some of the land has also been farmed with sugar beets and dry onions.

Fresno Slough Water District

Fresno Slough Water District is entirely an agricultural district and does not supply water for M&I use. It is also located in the area of the Interstate 5 Business Development Corridor, nearest to the town of Tranquillity. While the area is currently experiencing small amounts of growth, this growth is not expected to affect the district's ability to remain entirely an agricultural district.

There are about 10 landowners in the district. Most of these landowners have farmed in the district for a number of years, contributing to its stable landowner base. Crops grown in the district are predominantly row crops (cotton, seed alfalfa, and sugar beets). There are few, if any permanent crops in the district and no major land conversions to permanent crops are anticipated. The main reason for the reliance on row crops rather than permanent crops is that soils are typically heavy clays and suitable only for row crops. Irrigation methods in the district include mostly furrow irrigation and a few solid-set sprinklers. Historically, small areas of the district have remained fallow during the growing season.

James Irrigation District

James Irrigation District is entirely an agricultural district and currently does not supply any water for M&I use. The district is also located in the area of the Interstate 5 Business Development Corridor and nearest to the city of San Joaquin in Fresno County. While the area is currently experiencing small amounts of growth, this growth is not expected to affect James Irrigation District's ability to remain entirely an agricultural district.

There are approximately 200 farms in James Irrigation District and about 23,233 acres of the 26,103-acre district were irrigated in 1996. The principal crops grown in the district include cotton and seed alfalfa with smaller amounts of alfalfa hay and tomatoes. Also, a small parcel of land (less than 500 acres) produces barley and wheat in rotation. Soil types in the areas of row crops include heavy Merced clay. Soil types in small areas of the district include light sandy loam soil types; these areas are planted with permanent crops (almonds and grapes). The trend in the district has been a gradual shift from larger farms to smaller family-owned farms. The typical irrigation method in the district is furrow irrigation. Drip irrigation was used for grapes. Historically, areas of the district have remained fallow during the growing season.

Laguna Water District

Laguna Water District is entirely an agricultural district with only one landowner. Because it is located in a rural area away from major development pressures, the conversion from agricultural to M&I uses is unlikely. Primary crops produced in the district include alfalfa hay, cotton, oats, sugar beets, and wheat. All the land in the district is irrigable agriculture.

Tranquillity Public Utilities District

The Tranquillity Public Utilities District includes approximately 32 farmable acres located adjacent to Fresno Slough. A portion of the property is occupied by the wastewater treatment plant. The balance is used for agriculture and is located in the area of the Interstate 5 Business Development Corridor. The nearby area is currently experiencing small amounts of growth; however, this growth is not expected to affect the Tranquillity Public Utilities District property operations in the short term.

Mercy Springs Water District

Mercy Springs Water District is entirely an agricultural district. Because it is located in a rural area away from major development pressures, the conversion from agricultural to M&I uses is unlikely. The crops typically produced in the district include cotton and alfalfa. All administrative functions for the district are currently being provided by Panoche Water District. Also, most of the district has been acquired by the Panoche

Drainage District for use as a regional drainage management facility on which subsurface drain water is applied to salt-tolerant crops. The CVP contract supply for this area has been assigned to other CVP districts. Administrative functions for Mercy Springs Water District are performed by Panoche Water District.

Oro Loma Water District

Oro Loma Water District is entirely an agricultural district with only one landowner. Because it is located in a rural area away from major development pressures, the conversion from agricultural to M&I uses is unlikely. The crops typically produced in the district include rice, and historically, some of the land has also been farmed with cotton.

Patterson Irrigation District

Patterson Irrigation District is entirely an agricultural district. The district provides no M&I water. It is anticipated that as Patterson and the Interstate 5 corridor continue to grow, any new proposed development requiring M&I water would be detached from the district. Patterson Irrigation District policy requires water users requesting M&I water to detach from the district. Therefore, despite neighboring growth pressures, Patterson Irrigation District is expected to remain entirely an agricultural district.

In the last 15 years, the primary crops have included apricots, beans, and alfalfa. Because the district is located in the heart of dairy country, crops like alfalfa will continue to be staple crops. However, there is a continued conversion from these row crops to higher valued permanent crops (almonds). Patterson Irrigation District does not currently maintain detailed records regarding irrigation methods. The best estimates show that the main irrigation methods used between 1986 and 1996 were primarily furrow/border followed by sprinklers and trickle irrigation.

Plain View Water District

Plain View Water District is primarily an agricultural district. In 1990, a portion of the district's CVP supply was allocated for M&I use to service commercial and residential development. The water provided by the district was treated and delivered by the City of Tracy. The district also intends to continue to provide M&I water to increasing urban development within its boundaries. This water will also be treated and delivered by the City of Tracy. Alternatively, the district may decide to assign a portion of its CVP water supply to the City of Tracy. Since 1990, approximately 500 acres of land have been converted to M&I use. The water allocated for the converted land will continue to serve the new land use through the City of Tracy water supply system. It is possible that as Tracy continues to grow, the amount of CVP water used for M&I purposes could increase.

It is also possible that the growth could result in some areas currently within the district being detached and annexed to the City of Tracy.

Row crops produced within the district include primarily alfalfa. Permanent crops include almond and cherries. There is also some dry farming in the district. Typical irrigation methods include primarily furrow and border irrigation and sprinklers.

Reclamation District #1606

Reclamation District #1606 has only one lessee and is entirely an agricultural district. Historically, only a small area of the district has been farmed and all remaining lands remained fallow. On those acres being farmed, cotton is the only crop produced. The other portions of the district are typically used for dry grazing.

Reclamation District #1606 is adjacent to James Irrigation District and near the city of San Joaquin. While the area is currently experiencing small amounts of growth, this growth is not expected to affect Reclamation District #1606's ability to remain entirely an agricultural district.

The West Side Irrigation District

The West Side Irrigation District is divided in half by the City of Tracy and, therefore, is directly impacted by the city's continuing growth. Currently, the district is an agricultural district and does not provide any water for M&I use. The district would prefer to continue to be solely an agricultural district. The City of Tracy has recently considered annexing approximately 1,400 acres of the district. It is possible that as the City of Tracy continues to grow, additional acres could be detached from the district. The district has held discussions with the City of Tracy to permanently transfer 5,000 acre-feet of CVP supply to meet Tracy's growing demand. This transfer would allow the district to continue to be strictly an agricultural district.

There are about 100 water users within the district. The main crops typically produced in the district include alfalfa for hay, cannery tomatoes, and beans. Although there are two small parcels of permanent crops (apricots and walnuts) within the district, the soil in the district is substandard for growing permanent crops and further conversion to permanent crops is not anticipated. Major irrigation types include furrow and border (flood) irrigation. The use of sprinkler irrigation in the district is difficult because of high winds. This year, no historically farmed land is fallow.

Tranquillity Irrigation District

Tranquillity Irrigation District is an agricultural district and currently does not supply water for M&I use. It is also located in the area of the Interstate 5 Business Development Corridor, nearest to the town of Tranquillity. While the area is currently experiencing small amounts of growth, this growth is not expected to affect the district's ability to remain entirely an agricultural district.

Principal crops grown in the district include cotton, seed alfalfa, canning tomatoes, sugar beets, and melons. Over the past few years, about 50 acres of land have been converted from row crops to permanent crops (almonds). The almond trees are still young (at two to three years old); however, it is expected that if they are successful, more land will be converted from row crops to more profitable permanent crops. The district has also experimented with growing small areas of innovative crop types including mustard, bell peppers, and zinnias for seed. It is estimated that 9,270 of the 10,750 acres in the district are irrigated. Typical irrigation for the row crops includes furrow irrigation. Drip systems were also installed for those acres converted to permanent crops. Tranquillity Irrigation District has approximately 100 landowners.

West Stanislaus Irrigation District

West Stanislaus Irrigation District is entirely an agricultural district and currently provides no water for M&I use. Although some land within the district is zoned for industrial use, there are currently no known development plans. It is also the district's policy to remain solely an agricultural district and it requires that any M&I users detach from the district.

Primary crops in the district include row crops (cannery tomatoes, beans, and alfalfa). The district has also continued to see a conversion from row crops to more profitable permanent crops including almonds and grapes. This trend is expected to continue. A portion of the district land is also being used for dairy farms. The typical irrigation methods in the district are furrow irrigation for row crops and drip irrigation or sprinklers for permanent crops. Gated pipe is also used extensively throughout the district for both furrow and border irrigation.

Widren Water District

Widren Water District is approximately 30 acres in size and is entirely an agricultural district with only one landowner. Because it is located in a rural area away from major development pressures, the conversion from agriculture to M&I is unlikely. Crops typically produced in the district include seed alfalfa and sugar beets.

FARMLAND CATEGORIES

Table 3.4-3 contains a description of farmland categories as defined by the U.S. Department of Agriculture, Natural Resources Conservation Service. Some of these farmland categories are found within San Joaquin, Stanislaus, Merced, and Fresno Counties.

Table 3.4-3
Important Farmland Map Categories

Category	Description
Prime Farmland	Land that has the best combination of physical and chemical characteristics for producing food, seed, forage, fiber, and oilseed crops and is also available for use. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods.
Farmland of Statewide Importance	Land other than Prime Farmland that has a good combination of physical and chemical characteristics for crop production. The land must have been used for production of irrigated crops within the last three years and also meet specific criteria including soil temperature and range.
Unique Farmland	Land that does not meet the criteria for either Prime Farmland or Farmland of Statewide Importance, but that is used for the production of specific high economic value crops. It is land that has a special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality of high yield of specific crops.
Farmland of Local Importance	Land that may be important to the local economy because of its productivity.

Source: County of Fresno 2000b.

Prime farmland continues to decline across the counties encompassing the contract service areas. Table 3.4-4 summarizes important farmland trends for Fresno, Merced, San Joaquin, and Stanislaus Counties.

REGULATORY SETTING

Williamson Act

The California Land Conservation Act of 1965 (more commonly known as the Williamson Act) established a voluntary tax incentive program for preserving both agricultural and open space lands. The Act reduces property taxes in return for the guarantee that the property will remain in agriculture for not less than 10 years, thereby slowing down the conversion of agricultural land. Under the Act, property owners enter into 10-year contracts with their respective counties. The county then places restrictions on the land in exchange for tax savings. The property is then taxed according to the income it is capable

Table 3.4-4
Important Farmland Changes from 2000 to 2002

Type of Farmland	Fresno County		Merced County		San Joaquin County		Stanislaus County	
	2000	2002	2000	2002	2000	2002	2000	2002
Prime Farmland	734,052	731,149	287,160	286,054	419,227	415,527	264,121	260,730
Farmland of Statewide Importance	491,569	490,353	157,936	158,405	93,739	92,521	30,715	30,069
Unique Farmland	104,223	102,946	96,355	100,749	59,118	61,849	59,850	61,205
Farmland of Local Importance	70,691	74,347	47,621	41,772	58,906	56,507	31,848	29,519
Important Farmland Subtotal	1,400,535	1,398795	589,072	586,980	630,990	626,404	386,534	381,523

Source: California Department of Conservation 2004; Division of Land Resource Protection, Farmland Mapping and Monitoring Program 2004.

of generating from agriculture and other compatible uses, rather than being taxed on its full market value. The contract is automatically renewed annually after the first 10 years, unless a written request, called a Notice of Non-Renewal, is prepared.

The California Department of Conservation, Division of Land Resources Protection maintains information by county on acres of land currently enrolled in the Williamson Act. Table 3.4-5 summarizes acreage of farmland enrolled in the Williamson Act for Fresno, Merced, San Joaquin, and Stanislaus Counties.

Table 3.4-5
Williamson Act: Total Reported Enrollment in 2000 and 2001

Type of Farmland	Fresno County		Merced County		San Joaquin County		Stanislaus County	
	2000	2001	2000	2001	2000	2001	2000	2001
Prime	1,084,968	1,080,671	--*	215,249	343,153	338,757	281,910	284,764
Nonprime	487,012	487,075	--*	122,907	151,703	148,213	405,484	404,869

Source: California Department of Conservation 2004
*Merced County began its participation in the Williamson Act in 2000; therefore, the number of acres in 2000 was unavailable.

ENVIRONMENTAL CONSEQUENCES

The renewal of the long-term contracts could potentially affect the following:

- Agricultural lands going out of production and remaining fallow, including some Prime or Unique Farmlands.

- Agricultural lands being converted to M&I use.

ACTIONS NOT EVALUATED IN THIS EA

The authorities and laws governing the renewal of the DMC Unit long-term water service contracts allow no discretionary control over private land-use activities. The renewal of long-term water service contracts being analyzed in this document, therefore, does not include any actions on private land.

Actions outside the renewal of current water service contracts between Reclamation and the DMC Unit contractors are also not analyzed. In addition, Reclamation's action does not include any discretionary actions relating to land-use questions. Changes in land use will be determined by the actions of individual water users as a result of multiple factors, including many that are unrelated to the federal action of this contract renewal.

For example, the implementation of long-term water service contract renewals would not directly affect land uses or result in any land use changes within the DMC Unit. It would not require the construction of new facilities that would alter current land uses and would not result in the installation of any structures that would conflict with current land use plans. The construction of facilities and the installation of structures associated with the operation and maintenance of the DMC Unit facilities are separate actions, subject to compliance with federal law and separate environmental review.

LAND FALLOWING

As discussed above under Affected Environment, some previously farmed land in the project area may remain fallow during a particular growing season. It can be assumed that some of this land also meets the Important Farmland criteria listed in Table 3.4-3. The specific districts that have fallowed land and the amounts and locations of the fallowed land vary during each growing season. Among the several reasons that land may be fallowed are:

- Water deliveries, reliability, and timing and their relation to pre-planting and management decisions and costs.

- Water availability.

- Water rights being transferred from one parcel of land to another.
- Economics, including cost controls, commodity pricing and market conditions.
- Foreclosures.
- Marginal agricultural land or poor soil conditions.
- Growth pressures (discussed below).

M&I, COMMERCIAL, AND RESIDENTIAL DEVELOPMENT

The long-term water service contract renewals would also not directly or indirectly cause land use to change from irrigation to M&I uses. Land use changes could occur regardless of the renewal, in part, because only cities and counties have land use jurisdiction. The irrigation or water districts or other agricultural districts have no land use jurisdiction, and thus they cannot control such changes within their boundaries. Moreover, the renewals are only for the maximum quantity available to each contractor under its current long-term water service contract. Therefore, there would be no substantive change from the supply provided under these contracts. It is important to emphasize that ongoing and future development pressures in the DMC Unit will continue to rely on CVP water.

The provision of continued CVP water service pursuant to the renewal of long-term water service contracts and authorized use of water for irrigation or M&I purposes means that M&I development may occur at some level and that some CVP contract water supply could be converted from agricultural to M&I use. This type of analysis, however, is "fact-specific," and the outcome depends in large part on the availability of alternative water supplies and reasonably foreseeable events that are outside of the scope of this EA.

The San Joaquin River Region is experiencing unprecedented growth and considerable development pressures. The Central Valley has become a magnet for those in search of affordable housing within a commuting distance of major employment centers. Specifically, for San Joaquin and Stanislaus Counties, this growth is primarily a result of people who move from the San Francisco Bay Area in a search for affordable housing costs and a highly attractive quality of life. Increased demand for residential property, combined with low prices for agricultural products and rising costs of farming, has created increased pressure for farmers to sell their land for housing developments. As the population increases and development pressures continue, it is expected that a corresponding increase in urban development and a decrease in agricultural lands in production would also continue.

Many of the DMC Unit contractors could be directly affected by the increasing growth pressures (specifically, those contractors located in San Joaquin and Stanislaus Counties and near the cities of Tracy and Patterson). While it is the policy of most of these districts to remain entirely agricultural districts, this could require an area currently within the district to detach from the district if M&I water is required for development. In the case of some districts, the amount of CVP water used for M&I purposes could increase.

The factors that could limit the potential for growth include the lack of water and areas that cannot be developed. Increased development pressures may result in increased pressures for additional M&I supply. In some areas, current water restrictions could result in little or no room for growth. Overall, to accommodate growth, other options for water supply would need to be considered, including water transfers and exchanges or additional groundwater pumping, if that is a feasible water supply option in the area.

INDIRECT IMPACTS/INTERRELATED ACTIVITIES

As a result of the federal action evaluated in this EA, DMC Unit contractors would continue to receive CVP water supplies in quantities that do not exceed their current contract amounts and that provide for continued agricultural or M&I use in their service areas. To the extent that such uses depend upon CVP supplies to continue, such continued uses are an indirect effect of contract renewal or are an interrelated activity. Much or all of the lands in the DMC Unit that can be cultivated are cultivated, and therefore continuation of the supply of water or even the addition of water would simply be used on lands currently under production. Thus, contract renewal would not result in increasing the level of agricultural activity within the DMC Unit above the current baseline.

In terms of indirect impacts, continued delivery of CVP water in the DMC Unit will likely support current trends towards M&I development in only specific, limited areas. The respective percentage and distribution of M&I and agricultural activities in the project area will be subject to a wide range of economic factors, local land use decisions, and other factors outside of Reclamation's control.

Depending on the effects of other contract provisions, such as increased prices for water, or related federal actions causing increased shortages of available CVP supplies, the amount of CVP water used by irrigation and M&I users may decrease as a result of the renewed contracts. Such indirect effects cannot be determined or quantified.

NO-ACTION ALTERNATIVE

As described in Chapter 2, the No-Action Alternative provides a baseline condition for comparing the action alternatives and represents future conditions at a projected level of

development without the implementation of any action alternative. Under the No-Action Alternative, long-term contracts would be renewed and contractors would still receive their CVP allocation.

The No-Action Alternative would not directly impact land uses within the project area. The renewal of long-term contracts in the DMC Unit would not involve construction of new facilities that would alter current land uses and would not result in the installation of structures that would conflict with current land use plans.

The long-term renewal of CVP water to the project area would only continue to provide water supplies that accommodate a portion of the planned populations and land uses that have been identified in the county general planning documents. The renewal of the long-term contracts would beneficially continue the water supply for agricultural production and crop production and, therefore, contribute to the continued production of these lands. Implementation of this alternative would not directly impact the continued production of agricultural crops or impair the productivity of important farmlands.

An indirect impact could occur as more land is fallowed when surface water supplies are unavailable or when deliveries are reduced in response to higher water costs under tiered pricing. Also, alternative surface water and groundwater supplies may become unaffordable because of the factors listed above. It is, however, difficult to attribute a corresponding loss of acreage to the affordability of water because of the wide range of factors that drive land use decisions.

ALTERNATIVE 1

Similar to the discussion above for the No-Action Alternative, Alternative 1 would not directly result in any adverse impacts to land use. The long-term renewal of CVP water to the project area would only continue to provide water supplies that accommodate a portion of the planned populations and land uses that have been identified in the county general planning documents. The renewal of the long-term contracts would continue the water supply for agricultural production and crop production and, therefore, contribute to the continued production of these lands. Implementation of this alternative would not directly impact the continued production of agricultural crops or impair the productivity of important farmlands.

ALTERNATIVE 2

Similar to the discussion above for the No-Action Alternative, Alternative 2 would not directly result in any adverse impacts to land use. The long-term renewal of CVP water to the project area would only continue to provide water supplies that accommodate a portion

of the planned populations and land uses that have been identified in the county general planning documents. The renewal of the long-term contracts would continue the water supply for agricultural production and crop production and, therefore, contribute to the continued production of these lands. Implementation of this alternative would not directly impact the continued production of agricultural crops or impair the productivity of important farmlands.

CUMULATIVE IMPACTS

Some of the DMC Unit contractors that are primarily agricultural could be affected by increasing growth pressures as California's population and economy continue to expand and to locate in the San Joaquin Valley. Most likely to be affected are those contractors located in San Joaquin and Stanislaus Counties and along the portion of the Interstate 5 corridor near the cities of Tracy and Patterson (i.e., Banta-Carbona Irrigation District, Del Puerto Water District, Patterson Irrigation District, Plain View Water District, The West Side Irrigation District, and, to a lesser extent, West Stanislaus Irrigation District).

Contractors in the I-5 Business Development Corridor, such as Tranquillity Irrigation District, James Irrigation District, Reclamation District #1606, the Coehlo Family Trust, and Tranquillity Public Utilities District, could also be affected, although the growth pressure is far less evident in that area. It is the present policy of most of these districts to remain entirely agricultural districts and to require that an area currently within the district to detach from the district if the land is to be converted from irrigated land to an M&I purpose of use. The only exception is the Plain View Water District, which has overlapping boundaries in some instances with the City of Tracy and has entered into arrangements for the City of Tracy to treat and deliver some of the district's M&I water to areas within the district's boundaries. Because the City of Tracy is already an M&I-only contractor, continued CVP service under its renewal contract would not cause a change.

In summary, any conversions from agricultural to M&I land use within the DMC Unit would not be caused by the terms of the renewal contract, nor by actions of the contractors that have no land use planning jurisdiction. Instead, such changes will result from land use planning decisions made by individual landowners. Some guidance as to the likely effect of future development in the area is found in the conservation policies of the agencies with land use planning jurisdictions. For example, the open space policies set forth in the City of Tracy General Plan and the opportunities for participation in the San Joaquin County Multi-Species Habitat Conservation Plan indicate that parties converting land to M&I uses in the area that is under the greatest development pressure will only be able to do so after an appropriate assessment of and mitigation for environmental impacts.

In order to evaluate how a change from an agricultural land use to an M&I land use could affect the environment, it is necessary to know both the current use of the parcel of land and the species associated with that parcel or area. The location of the converted land and the nature of the proposed M&I use are also highly relevant factors. Such information cannot be identified until specific changes have been proposed as part of the environmental review of the specific projects.